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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,759	07/31/2000	Chi M. Cheung	INTL-0427-US (P9133)	4801

7590
06/05/2003
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EXAMINER

CARTER, AARON W

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 06/05/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/628,759

Applicant(s)

CHEUNG, CHI M.

Examiner

Aaron W Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,579,058 to Lee in view of USPN 6,542,078 to Script et al. ("Script").

As to claims 1,2,9 and 10, Lee discloses a method comprising:

Detecting motion within an imaged scene (column 3, lines 52-54);

Capturing a digital representation of said scene in an imaging device (column 4, lines 65-66);

Encoding information in said digital representation to indicate whether motion was detected (column 6, lines 34-39, wherein the spatial correlation information is added to the information on the frame);

Lee neglects to explicitly disclose transmitting said digital representation from said imaging device to a processor-based system over a bus. Although this is an obvious limitation and it is well known in the art to send images from an imaging device to a processor-based system, such as a computer, for manipulation, storage, or the like, Script discloses a portable motion detector (Title) with imaging device (Fig. 15, element 142) that transmits gathered information, in the form of an image, to a remote device (Fig. 15, elements 144, 146 and 148a) via Universal Serial Bus (column 11, line 12) to a processor-based system. Therefore it would

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have been obvious to one of ordinary skill in the art to combine the invention of Lee with the teachings of Script to provide the advantage of sending images that are known to contain movement to a processor-based system for manipulation, storage, or to notify computer of movement so that further action can be taken in response.

As to claims 3,4,11 and 12, Lee does not explicitly disclose capturing includes capturing image data representing said scene and wherein encoding information in said digital representation includes encoding information in place of image data. However in column 6, lines 34-39, wherein a 3-bit spatial correlation information is added to the information on the frame, it is obvious that the 3-bits take the place of already existing image data which could have obviously been in the form of intensity values.

As to claims 5 and 13, Lee discloses providing a bit in said digital representation to indicate whether motion was detected (column 6, lines 34-35).

As to claims 6 and 14, Lee discloses decoding said digital representation and determining whether motion was detected (column 8, line 63 – column 9, line 2, wherein the comparator decodes the spatial correlation to determine if motion was detected).

As to claims 7 and 15, Script discloses controlling the storage of said digital representation on the processor-based system based on whether motion was detected (Fig. 15, element 150a).

Claims 8 and 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Script as applied to claims 1 and 9 above, and further in view of USPN 6,532,232 to Goodwin, III.

As to claims 8 and 16, the combination of Lee and Script disclose the limitation according to claims 1 and 9, but neglect to explicitly disclose that encoding information in said digital representation includes forming a plurality of packets containing image data and replacing image data in one of said packets with information about whether motion was detected. Although it is a well know practice in the art to form the data being sent over a bus into packets, Goodwin discloses forming video data into packets and transmitting those packets from the imaging device to a processor-based system (column 2, lines 27-37 and Fig. 1). Therefore it would have been obvious to one of ordinary skill in the art to combine the inventions and teachings of Lee, Script, and Goodwin to provide the advantage of forming packets of image data, including the replacing of image data in one of the packets with motion detection information, which allows for faster transmission speeds.

Claims 17, 19, 23, and 25 are rejected based on the same reasoning for rejections applied to claims 1 and 8 above.

Claims 18 and 24 are rejected based on the same reasoning for rejections applied to claim 2 above.

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As to claim 20, Goodwin discloses wherein serial bus interface forms said image data into packets including both a payload and a header (column 2, lines 38-40).

As to claim 21, Goodwin discloses including intensity information in said packets, said intensity information having a least significant bit (column 2, lines 27-37, wherein it is inherent that digital video data will contain intensity and it is also inherent that digital data is structured into an allotted number of bits of which there will always be a least significant).

As to claim 22, Lee discloses adding a bit to indicating whether motion was detected, but neglects to disclose replacing the LSB of intensity information in the image data, however the Examiner takes Official Notice that it is well known in the art of Electrical Engineering, that replacing the LSB of any bit string will produce the least amount of corruption to the data being manipulated.

Claim 26 is rejected based on the same reasoning for rejections applied to claims 5 and 8 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,005,613 to Endsley et al. discloses camera to computer transmission using packets.

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USPN 6,570,496 to Britton discloses motion detector and CCD connected via a bus to another processor-based system.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is 703.306.4060. The examiner can normally be reached by telephone between 8am - 4:30pm (Mon. – Fri.).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703.308.5246. The fax phone number for the organization where the application or proceeding is assigned is 703.872.9314 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.0377.

Aaron W. Carter
Examiner
Art Unit 2625

Auc
awc

May 31, 2003


BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600